

## EFFICIENT TRANSMISSION OF QUARTER-VGA IMAGES USING DVC CODECS

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### ABSTRACT OF THE DISCLOSURE

Methods and apparatus for encoding and decoding vide subframes (e.g., lower-resolution video) with a DVC video coder are disclosed. Although a subframe can be encoded or decoded by wholesale insertion of the subframe into a subregion of a DVC frame, the DVC coding method is largely inefficient in coding a subregion. Because each video  
10 segment comprises several staggered blocks of data from widespread locations in the DVC frame, subregion pixels become inextricably coded in a fixed-length video segment with blank pixels, defeating attempts at compression.

The disclosed embodiments allow a DVC video coder to efficiently code a subframe. The disclosed encoder embodiments redistribute blocks of data from a subframe to  
15 correspond with the staggered locations used for video segment creation. This separates video segments at the DVC coder output into two groups—those largely or completely composed of subframe data, and those containing discardable data. The present invention allows a DVC coder to be used efficiently for several different video resolutions, or in a low-resolution system.